

WHAT IS CLAIMED IS:

1. A method for processing an image, comprising:
inputting characteristics of an image data source;
inputting characteristics of an image output terminal;
5 determining a system tone reproduction curve based on the image data source characteristics and the image output terminal characteristics;
adjusting the tone reproduction curve;
inputting image data; and
adjusting the image data based on the adjusted tone reproduction curve.
- 10 2. The method according to claim 1, wherein the tone reproduction curve is adjusted using gray balance.
3. The method according to claim 2, wherein the tone reproduction curve is adjusted using different darkness of various colors of the image data.
4. The method according to claim 1, wherein a tone reproduction curve is
15 determined for each of various colors of the image data.
5. The method according to claim 4, wherein the tone reproduction curve for each of the various colors is extended smoothly.
6. The method according to claim 5, wherein a spline function is applied to extend at least one tone reproduction curve.
- 20 7. The method according to claim 4, wherein an angle formed between a tangent to at least one tone reproduction curve at a point, and a line from the point to an end point is less than a threshold value.
8. An apparatus for processing an image, comprising:
a tone reproduction curve adjustment unit that inputs characteristics of
25 an image data source and characteristics of an image output terminal, that determines a system tone reproduction curve based on the image data source characteristics and the image output terminal characteristics, and that adjusts the tone reproduction curve;
and
a tone reproduction curve transformation unit that inputs image data
30 and that adjusts the image data based on the adjusted tone reproduction curve.
9. The apparatus according to claim 8, wherein the tone reproduction curve is adjusted using gray balance.

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14. The apparatus according to claim 11, wherein an angle formed between a tangent to at least one tone reproduction curve at a point, and a line from the point to an end point is less than a threshold value.